

Small rectangular LEDs (2 × 5 mm)

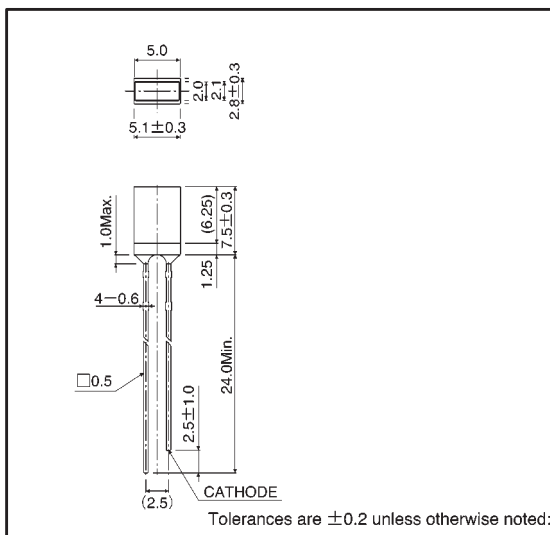
SLB-25 Series

The SLB-25 series are 2 × 5 mm rectangular LEDs with a high luminous efficiency. They are available in four colors and are suitable for use in a wide variety of applications.

●Features

- 1) Small and rectangular (2 × 5 mm) with uniform light emission.
- 2) High luminance.
- 3) Four colors : red, orange, yellow and green.
- 4) Colored diffused lens.
- 5) High reliability.

●External dimensions (Units: mm)



●Selection guide

Emitting color Lens	Red	Orange	Yellow	Green
	Colored diffused	SLB-25VR	SLB-25DU	SLB-25YY

●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Red	Orange	Yellow	Green	Unit
		SLB-25VR	SLB-25DU	SLB-25YY	SLB-25MG	
Power dissipation	P _D	60	60	60	75	mW
Forward current	I _F	20	20	20	25	mA
Peak forward current	I _{FP}	60*	60*	60*	60*	mA
Reverse voltage	V _R	3	3	3	3	V
Operating temperature	T _{opr}	-25~+85				°C
Storage temperature	T _{stg}	-30~+100				°C
Soldering temperature	—	260°C 5 seconds maximum				—

* Pulse width 1ms Duty 1 / 5

●Electrical and optical characteristics (Ta = 25°C)

Parameter	Symbol	Conditions	Red			Orange			Yellow			Green			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
Forward voltage	V_F	$I_F=10\text{mA}$	—	2.0	3.0	—	2.0	3.0	—	2.1	3.0	—	2.1	3.0	V
Reverse current	I_R	$V_R=3\text{V}$	—	—	10	—	—	10	—	—	10	—	—	10	μA
Peak wavelength	λ_P	$I_F=10\text{mA}$	—	650	—	—	610	—	—	585	—	—	563	—	nm
Spectral line half width	$\Delta \lambda$	$I_F=10\text{mA}$	—	40	—	—	40	—	—	40	—	—	40	—	nm
Viewing angle	$2\theta_{1/2}$	Diffused	—	120	—	—	120	—	—	120	—	—	120	—	deg

●Luminous intensity vs. wavelength

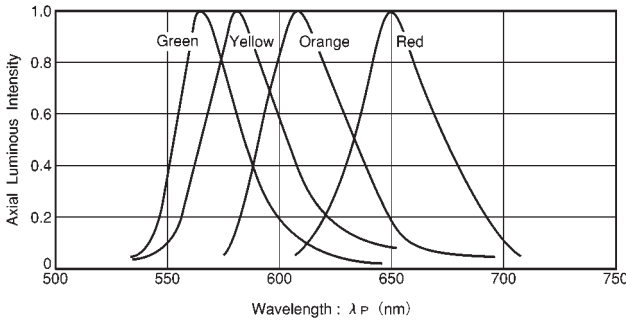


Fig.1

●Luminous intensity

Color	λ_P	Type	Min.	Typ.	Max.	Unit
Red	650	SLB-25VR	0.36	1.0	—	mcd
Orange	610	SLB-25DU	0.36	1.0	—	mcd
Yellow	585	SLB-25YY	0.36	1.0	—	mcd
Green	563	SLB-25MG	0.36	1.0	—	mcd

Note: Measured at $I_F = 10 \text{ mA}$

●Directional pattern

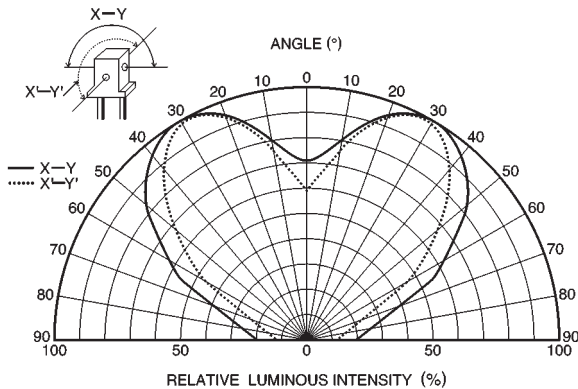


Fig. 2 Diffused type

● Electrical characteristic curves 1 (red)

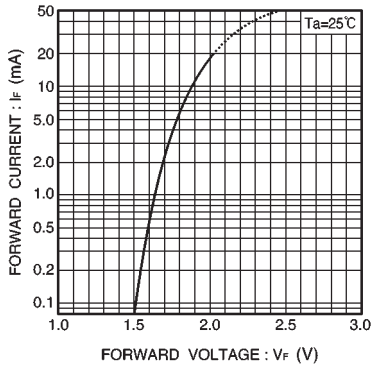


Fig. 3 Forward current vs. forward voltage

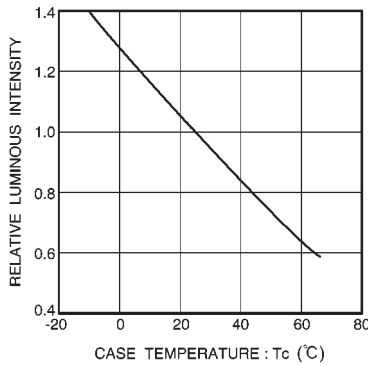


Fig. 4 Luminous intensity vs. case temperature

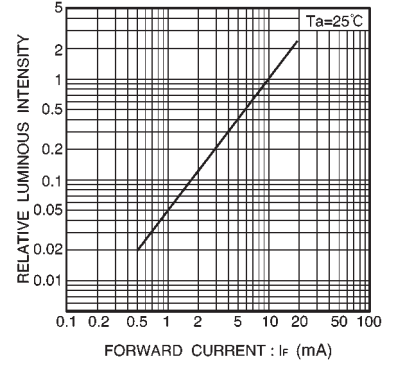


Fig. 5 Luminous intensity vs. forward current

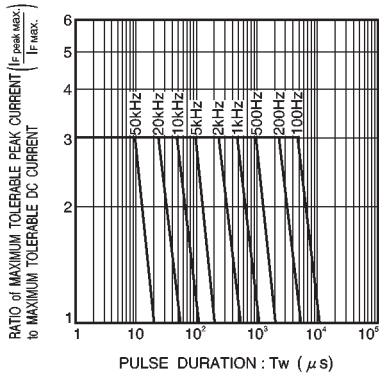


Fig. 6 Maximum tolerable peak current vs. pulse duration

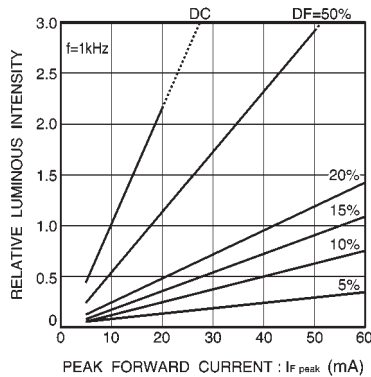


Fig. 7 Luminous intensity vs. peak forward current

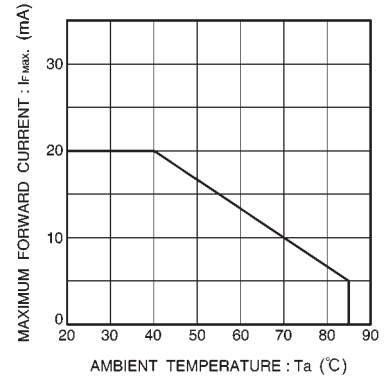


Fig. 8 Maximum forward current vs. ambient temperature

●Electrical characteristic curves 2 (orange)

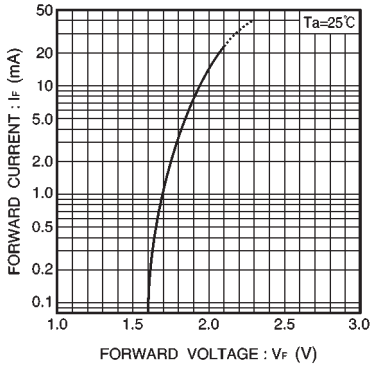


Fig. 9 Forward current vs. forward voltage

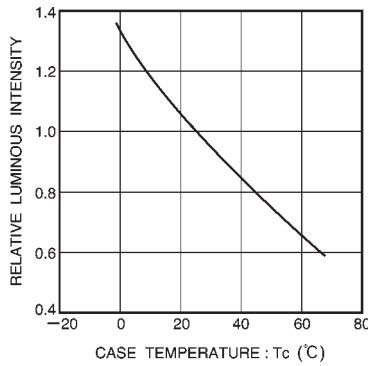


Fig. 10 Luminous intensity vs. case temperature

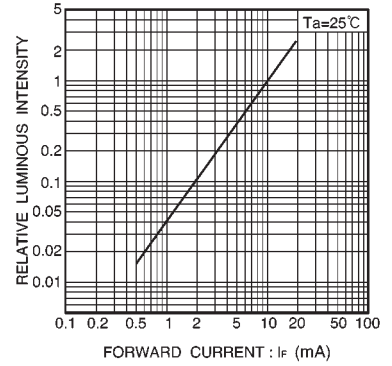


Fig. 11 Luminous intensity vs. forward current

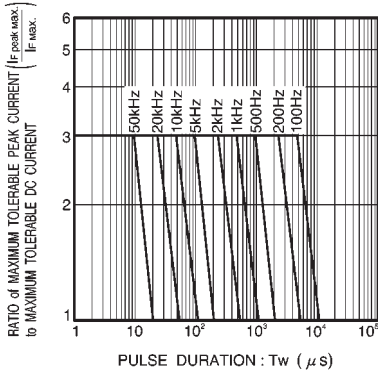


Fig. 12 Maximum tolerable peak current vs. pulse duration

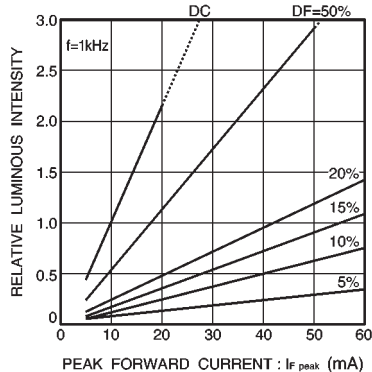


Fig. 13 Luminous intensity vs. peak forward current

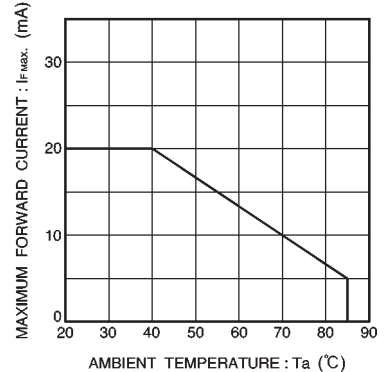


Fig. 14 Maximum forward current vs. ambient temperature

●Electrical characteristic curves 3 (yellow)

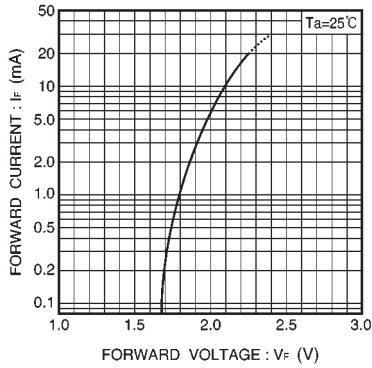


Fig. 15 Forward current vs. forward voltage

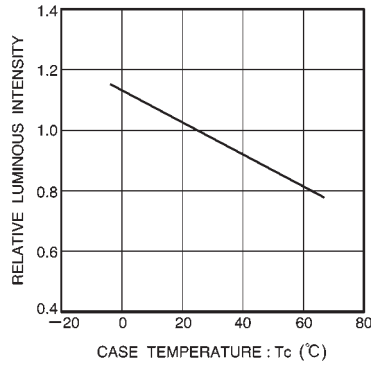


Fig. 16 Luminous intensity vs. case temperature

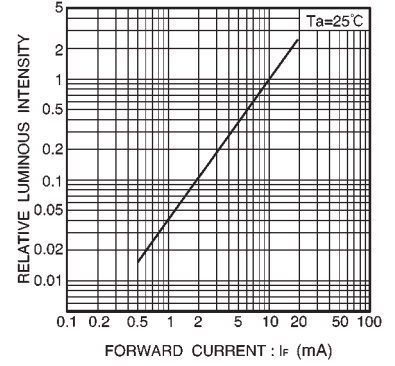


Fig. 17 Luminous intensity vs. forward current

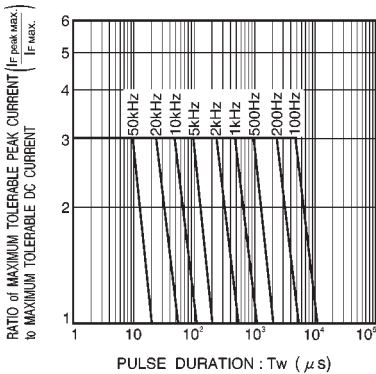


Fig. 18 Maximum tolerable peak current vs. pulse duration

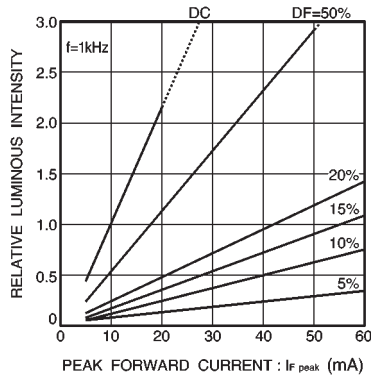


Fig. 19 Luminous intensity vs. peak forward current

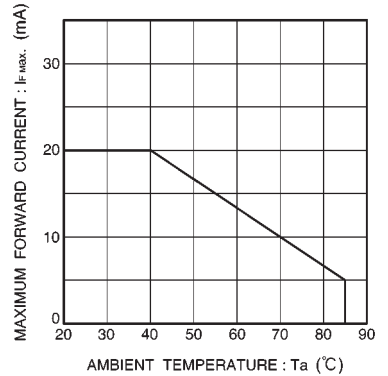


Fig. 20 Maximum forward current vs. ambient temperature

●Electrical characteristic curves 4 (green)

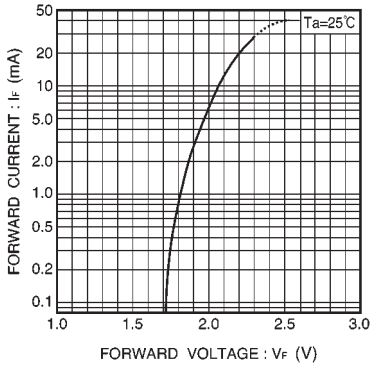


Fig. 21 Forward current vs. forward voltage

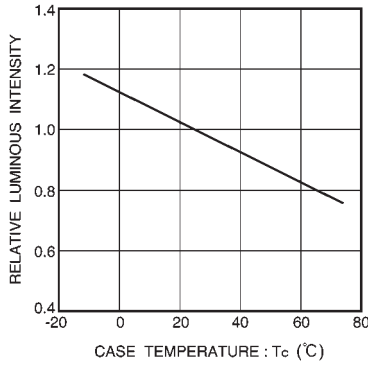


Fig. 22 Luminous intensity vs. case temperature

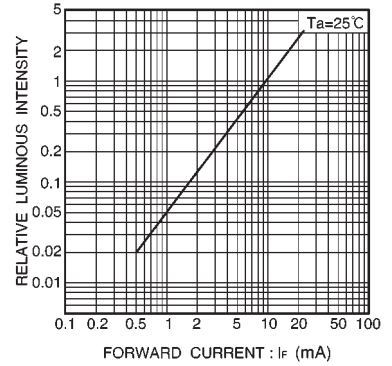


Fig. 23 Luminous intensity vs. forward current

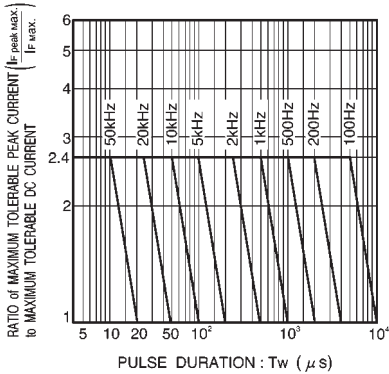


Fig. 24 Maximum tolerable peak current vs. pulse duration

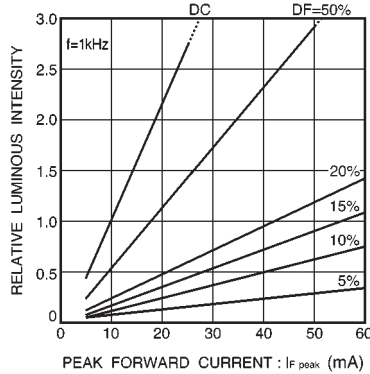


Fig. 25 Luminous intensity vs. peak forward current

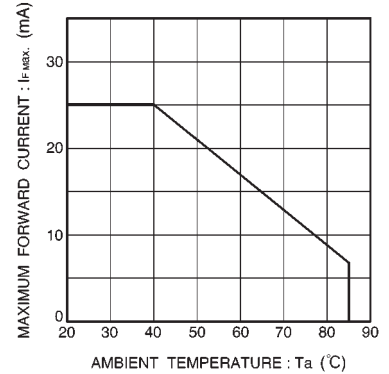


Fig. 26 Maximum forward current vs. ambient temperature